

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

REC'D 15 MAY 2006 PCT

MAILED PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/B2005/050209

International filing date (day/month/year)
18.01.2005

Priority date (day/month/year)
28.01.2004

International Patent Classification (IPC) or both national classification and IPC
INV. H05B41/00 H01J61/82

Applicant
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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Date of completion of
this opinion

see form
PCT/ISA/210

Authorized Officer

Silva, João Carlos

Telephone No. +31 70 340-3537



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2005/050209

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search. (Rules 12.3(a) and 23.1 (b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material:

- ☐ a sequence listing
- ☐ table(s) related to the sequence listing

b. format of material:

- ☐ on paper
- ☐ in electronic form

c. time of filing/furnishing:

- ☐ contained in the international application as filed.
- ☐ filed together with the international application in electronic form.
- ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2005/050209

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-9
Inventive step (IS)	Yes: Claims	
	No: Claims	1-9
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V.

- 1 Reference is made to the following documents:

D1 : US 4 904 903 A (PACHOLOK ET AL) 27 February 1990 (1990-02-27)

2 CLARITY OF THE APPLICATION

- 2.1 The application does not meet the requirements of Article 6 PCT, because claim 1 is not clear.

From the wording of the claim "comparing the lamp voltage response to a current step in said current signal" it is not clear what is referred to as "current step". While it appears that the applicant refers to the superimposed current step (G2) on the steady state current signal (G1), the present formulation also includes a current step only in the steady state current signal (G1) i.e. without the superimposed signal. Would the applicant intend to cover the later case too, the claim would also lack support from the description, as only a waveform with a superimposed current step is disclosed.

- 2.2 Claim 1 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined. The claim attempt to define the subject-matter in terms of the result to be achieved, which merely amounts to a statement of the underlying problem, without providing the technical features necessary for achieving this result. It is not clear how starting from the step of comparing the lamp voltage response to some reference parameters, the generation of a signal indicating the end of life or the generation of a signal indicating the lamp type is achieved.

- 2.3 While in claim 1 is clearly defined that after the comparison "**at least one of the following steps is performed**", in claim 9 it is unclear if the apparatus comprises all the means or only one of the listed means. The apparatus claim 9 will be read as if it had "at least one of the following means for".

3 INDEPENDENT CLAIM 1

- 3.1 Furthermore, the above-mentioned lack of clarity notwithstanding, the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT, and therefore the criteria of

Article 33(1) PCT are not met.

- 3.2 Due to the above lack of clarity (see paragraphs 2.1 and 2.2), a generally known method of driving a high pressure discharge lamp with a square wave, comprising an over voltage detector that shuts off the lamp in case the voltage at the lamp exceeds a certain parameter value, would fall within the scope of the claim rendering it not new.
- 3.3 Document D1 discloses a method of driving a high-pressure discharge lamp during its steady-state operation comprising the method steps of:
- sending a steady-state current through the lamp for maintaining an arc in the lamp (D1: Fig. 1a; desc. col. 5, lines 28-32);
 - superimposing on the said steady-state current signal a current pulse (D1: Fig. 1b-1m; desc. col. 5, lines 3-27);
 - comparing the lamps response (in terms of current, voltage or power) to said current pulse with reference parameters (D1: Fig. 1a; desc. col. 4, lines 16-38);
 - changing the steady-state waveform of the current signal through the lamp by increasing or decreasing the duration of said pulse function of the power (D1: desc. col. 5, lines 16-69), or increasing the steady state current (D1: Fig. 1h-1m);

The method defined by claim 1 is anticipated by D1, therefore the subject-matter of claim 1 is not new.

4 INDEPENDENT CLAIM 9

- 4.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 9 is not new in the sense of Article 33(2) PCT.

Document D1 discloses a ballast for driving a high pressure discharge lamp comprising:

- supply means (BT1,R1) for sending a steady-state current signal for maintaining an arc in the lamp (D1: Fig. 1a);
- supply means (BT2,Q1) for superimposing a current pulse on the steady-state current signal (D1: FIG. 1a)

- means for comparing (7,6) the lamps response (in terms of current, voltage or power) to said current pulse with reference parameters (D1: FIG.2);
- means for changing the steady-state current through the lamp;
- means for changing the steady-state waveform of the current signal through the lamp in response to said comparison (D1: Fig. 1h-1m);

The functional features of the Ballast defined by claim 9 are anticipated D1, therefore the subject-matter of claim 9 is not new.

5 DEPENDENT CLAIM 2

Document D1 also discloses the use of a alternating current signal as a steady-state current signal (D1: desc. col. 8, lines 46-60). Therefore the subject-matter of claim 2 is not new.

6 DEPENDENT CLAIMS 3-8

Dependent claims 2-8 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

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The method defined by claim 1 is anticipated by D1, therefore the subject-matter of claim 1 is not new.

4 INDEPENDENT CLAIM 9

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- means for changing the steady-state current through the lamp;
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The functional features of the Ballast defined by claim 9 are anticipated D1, therefore the subject-matter of claim 9 is not new.

5 DEPENDENT CLAIM 2

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